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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/731,025

**Applicant(s)**

SHIN, JUN YONG

**Examiner**

USMAN KHAN

**Art Unit**

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 September 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 4-38 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 4-38 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-089)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

***Response to Arguments***

Applicant's arguments filed on 09/16/2008 with respect to claims 1, 14, 24, and 35 have been considered but are moot in view of the new ground(s) of rejection and a reinterpretation of Sotoda et al. reference.

Regarding objection to specification provided in the previous office action for failing to provide a descriptive title. Applicant has amended the title of the invention to overcome the objection to the specification.

Regarding objection to claims 33 - 34 provided in the previous office action. Applicant has amended claim 1 to overcome the objection to claims 33 - 3.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 14, 16 - 18, and 21 - 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Sotoda et al. (US patent No. 5,835,641).

Regarding **claim 14**, Sotoda et al. teaches a zoom method (column 7 lines 17 *et seq.*; zoom control means) comprising:

searching a plurality of lines of a photographic screen (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35);

for each of the plurality of lines, extracting a color average value and a deviation of a photographic object on the photographic screen (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition);

determining a size of a photographic object based on the extracted average value and the extracted deviation for each of the plurality of lines (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size);

setting a zoom ratio based on the determined size of the photographic object and a reference value (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size); and applying the set zoom ratio to the photographic object (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 - 135).

Regarding **claim 16**, as mentioned above in the discussion of claim 14, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches preprocessing the photographic screen according to a set photographic mode (column 2 lines 34 *et seq.* camera searches for printed labels 35 with coding 36 with language).

Regarding **claim 17**, as mentioned above in the discussion of claim 16, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches that the photographic mode comprises one of a portrait mode and a text mode (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)).

Regarding **claim 18**, as mentioned above in the discussion of claim 16, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches preprocessing the photographic screen comprises performing one of a smoothing method and a blurring method for minimizing error generation (figure 10 item 25).

Regarding **claim 21**, as mentioned above in the discussion of claim 14, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches that searching the plurality of lines comprises alternatively searching lines with a predetermined gap up and down one line by one line (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; this portion of the image is scanned).

Regarding **claim 22**, as mentioned above in the discussion of claim 14, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al.

teaches converting into a user hand mode so that a user can perform a direct zoom processing when the photographic object is not a normal region (column 8 lines 43 – 56, column 14 lines 21 – 27, column 22 lines 15 - 23; user controlled).

Regarding **claim 23**, as mentioned above in the discussion of claim 14, Sotoda et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches the reference value comprises one of a value preset manually by a user and a value preset based on a screen contrast (column 12 lines 22 *et seq.*; contrast).

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4 - 13, 15, 19 - 20, and 24 - 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotoda et al. (US patent No. 5,835,641) in view of Fujii et al. (US PgPub No. 2002/0122121).

Regarding **claim 1**, Sotoda et al. teaches a zoom method (column 7 lines 17 *et seq.*; zoom control means) comprising: an extracting a color average value and a deviation of a photographic object within the photographic screen (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area

recognition) for each of an upper line and a lower line (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35); determining a size of photographic object based on the extracted color average value and the extracted deviation for each of the upper line and the lower line (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size); and setting a zoom ratio according to the determined size of the photographic object (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size).

However, Sotoda et al. fails to disclose searching a center search line of a photographic screen. Fujii et al., on the other hand teaches searching a center search line of a photographic screen.

More specifically, Fujii et al. teaches searching a center search line of a photographic screen (figures 17 – 27 and 29 - 30; item CR).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fujii et al. with the teachings of Sotoda et al. to provide better operability as taught in paragraphs 0009 – 0011 of Fujii et al.

Regarding **claim 4**, as mentioned above in the discussion of claim 1, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches wherein calculating the size of the photographic object comprises: analogizing a size of a photographic object by calculating the average value and the

deviation (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition; also column 7 lines 17 *et seq.*; size); and judging whether the photographic object is a normal region corresponding to a photographic mode (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)).

Regarding **claim 5**, as mentioned above in the discussion of claim 4, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches converting a digital camera into a user hand mode so that a user can perform a direct zoom processing when the photographic object is not a normal region (column 8 lines 43 – 56, column 14 lines 21 – 27, column 22 lines 15 - 23; user controlled).

Regarding **claim 6**, as mentioned above in the discussion of claim 1, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches that searching the center search line comprises: setting a photographic mode (paragraphs 0053 – 0054 and 0095); preprocessing the photographic screen (figures 17 – 27 and 29 - 30; item CR); and performing a line scanning at a region of the center search line (figures 17 – 27 and 29 - 30; item CR).



Regarding **claim 7**, as mentioned above in the discussion of claim 6, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches preprocessing the photographic screen comprises performing one of a smoothing method and a blurring method for minimizing error generation (figure 10 item 25).

Regarding **claim 8**, as mentioned above in the discussion of claim 1, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches the center search line comprises a horizontal axis including an approximate center of the photographic screen and a reference for starting an initial line scanning (figures 17 – 27 and 29 - 30; item CR).

Regarding **claim 9**, as mentioned above in the discussion of claim 1, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches that extracting the color average value and a deviation of the photographic object comprises: searching a number of upper and lower search lines from the center search line based on the center search line (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35); extracting the color average value and the deviation of the photographic object (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition).

However, Sotoda et al. fails to disclose detecting the photographic object by searching the center search line. Fujii et al., on the other hand teaches detecting the photographic object by searching the center search line.

More specifically, Fujii et al. teaches detecting the photographic object by searching the center search line (figures 17 – 27 and 29 - 30; item CR).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fujii et al. with the teachings of Sotoda et al. to provide better operability as taught in paragraphs 0009 – 0011 of Fujii et al.

Regarding **claim 10**, as mentioned above in the discussion of claim 9, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches that searching the number of upper and lower search lines comprises performing a line-scanning (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; this portion of the image is scanned), and searching lines set with a predetermined gap up and down one line by one line (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; this portion of the image is scanned).

Regarding **claim 11**, as mentioned above in the discussion of claim 9, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches when the photographic object is not detected (figures 17 – 27, 29 –

30, and more specifically figures 32 - 35; item CR), the method further comprises: resetting the center search line (figures 17 – 27, 29 – 30, and more specifically figures 32 - 35; item CR); resetting upper and lower search lines based on the reset center search line (figures 17 – 27, 29 – 30, and more specifically figures 32 - 35; item CR); and searching the number of upper and lower search lines based on the reset search line (figures 17 – 27, 29 – 30, and 32 – 35; AU, AP, the upper portion line and lower portion line of the boxes AU and AP; also OB).

Regarding **claim 12**, as mentioned above in the discussion of claim 1, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches setting the zoom ratio comprises determining the zoom ratio by comparing the determined size of the photographic object with a reference (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition, figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 - 135; also column 7 lines 17 *et seq.*; size).

Regarding **claim 13**, as mentioned above in the discussion of claim 12, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches the reference value comprises one of a value manually preset by a user and a value preset based on a screen contrast (column 12 lines 22 *et seq.*; contrast).

Regarding **claim 15**, as mentioned above in the discussion of claim 14, Sotoda et al. teaches all of the limitations of the parent claim.

Additionally, Sotoda et al. teaches extracting a color average value and a deviation of a photographic object within the photographic screen (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition)

However, Sotoda et al. fails to disclose setting a center search line of the photographic screen, and wherein the extracting includes performing a line scan of the center search line. Fujii et al., on the other hand setting a center search line of the photographic screen, and wherein the extracting includes performing a line scan of the center search line.

More specifically, Fujii et al. teaches searching setting a center search line of the photographic screen, and wherein the extracting includes performing a line scan of the center search line (figures 17 – 27 and 29 - 30; item CR).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fujii et al. with the teachings of Sotoda et al. to provide better operability as taught in paragraphs 0009 – 0011 of Fujii et al.

Regarding **claim 19**, as mentioned above in the discussion of claim 15, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches the center search line comprises a horizontal axis including an

approximate center of the photographic screen and a reference for performing a line scan in order to detect the photographic object (figures 17 – 27 and 29 - 30; item CR).

Regarding **claim 20**, as mentioned above in the discussion of claim 15, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches comprising resetting the center search line when the photographic object is not detected along the center search line (figures 17 – 27, 29 – 30, and more specifically figures 32 - 35; item CR); wherein the extracting includes performing a line scan based on the reset center search line (figures 17 – 27, 29 – 30, and 32 – 35; AU, AP, the upper portion line and lower portion line of the boxes AU and AP; also OB).

Regarding **claim 24**, Sotoda et al. teaches a zoom method of a digital camera apparatus associated with a mobile communication terminal (column 7 lines 17 *et seq.*; zoom control means) the comprising: searching an upper search line to extract an average value and a deviation of a skin color of the photographic object (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)); searching a

lower search line to extract an average value and a deviation of a skin color of the photographic object (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)); and determining a size of a face region based on the extracted average value and the extracted deviation of the skin color for the upper search line and based on the extracted average value and the extracted deviation of the skin color for the lower search line (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size; also, figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35).

However, Sotoda *et al.* fails to disclose searching a first search line of a photographic screen. Fujii *et al.*, on the other hand teaches searching a first search line of a photographic screen.

More specifically, Fujii *et al.* teaches searching a first search line of a photographic screen (figures 17 – 27 and 29 - 30; item CR).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fujii *et al.* with the teachings of Sotoda *et al.* to provide better operability as taught in paragraphs 0009 – 0011 of Fujii *et al.*

Regarding **claim 25**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches comparing the calculated size of the face region with a reference value; and calculating a zoom ratio based on the comparison (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example); also column 7 lines 17 *et seq.*; size).

Regarding **claim 26**, as mentioned above in the discussion of claim 25, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches applying the calculated zoom ratio to the photographic screen (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 - 135).

Regarding **claim 27**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches the first search line comprises a center search line positioned approximately at a center of the photographic screen (figures 17 – 27 and 29 - 30; item CR).

Regarding **claim 28**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Fujii et al. teaches resetting a search line (figures 17 – 27, 29 – 30, and more specifically figures 32 - 35; item CR) and searching the reset search line (figures 17 – 27, 29 – 30, and 32 – 35; AU, AP, the upper portion line and lower portion line of the boxes AU and AP; also OB).

Regarding **claim 29**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches searching the upper search line and the lower search line comprises alternatively searching lines set with a predetermined gap up and down one line by one line (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; this portion of the image is scanned).

Regarding **claim 30**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches determining the size of the face region comprises: determining an area of the face region by obtaining a number of pixels that exist within a range of a certain deviation from an average value of a skin color (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition;



also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example); also column 7 lines 17 *et seq.*; size).

Regarding **claim 31**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. in teaches calculating the size of the face region comprises: analogizing a length of a longest search line as a face width by obtaining a length variation through search lines having a smaller gap than the upper and lower search lines (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; this portion of the image is scanned).

Regarding **claim 32**, as mentioned above in the discussion of claim 24, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches determining the size of the face region comprises judging whether a calculated face region is a normal photographic object (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example); also column 7 lines 17 *et seq.*; size).

Regarding **claim 33**, as mentioned above in the discussion of claim 32, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally,

Sotoda et al. teaches converting the digital camera into a user hand mode so that a user can perform a direct zoom processing when the determined face region is not a normal photographic object (column 8 lines 43 – 56, column 14 lines 21 – 27, column 22 lines 15 - 23; user controlled also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)).

Regarding **claim 34**, as mentioned above in the discussion of claim 24, Fujii et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches when plural skin colors more than a certain length exist and skin colors of a same pattern (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example)) are detected at the search line and at adjacent upper and lower search lines (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35), the method further comprises:

judging that a plurality of photographic objects exist (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11

and 16 and column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing an object (a human face, for example)); extracting an average value and a deviation of a skin color for each photographic object judged to be a face (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing an object (a human face, for example)); calculating an area of a face region by obtaining a number of pixels that exist within a range of a certain deviation from the average value of each skin color (column 8 lines 43 – 56, column 14 lines 21 – 27, column 22 lines 15 - 23; user controlled also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing objects (human face, for example); also column 7 lines 17 *et seq.*; size); and zooming a photographic screen with a preset zoom ratio based on the number and a face size of the photographic object (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35; also figures 11 and 16 and column 12 lines 49 *et seq.* and column 15

liens 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing an object (a human face, for example)).

Regarding **claim 35**, Sotoda et al. teaches digital camera zoom method for a mobile communication terminal (column 7 lines 17 *et seq.*; zoom control means) the comprising: detecting an average value of a stroke thickness of the text (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing an object (a human face, for example) but can be any thing in the region even text), the method comprising:

detecting text (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; range of colors and area recognition also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; also column 12 lines 49 *et seq.* and column 15 liens 6 *et seq.*; means for recognizing an object (a human face, for example) but can be any thing in the region even text; also column 7 lines 17 *et seq.*; size);

detecting an average value of a stroke thickness of the text by searching upper and lower search lines of the photographic screen (figure 12a – 12b items 33 and 35; the upper portion line and lower portion line of items 33 and 35); and

determining a size of the text based on the detected average value of the stroke thickness of a text (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; also column 7 lines 17 *et seq.*; size).

However, Sotoda et al. fails to disclose searching a center search line of a photographic screen. Fujii et al., on the other hand teaches searching a center search line of a photographic screen.

More specifically, Fujii et al. teaches searching a center search line of a photographic screen (figures 17 – 27 and 29 - 30; item CR).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Fujii et al. with the teachings of Sotoda et al. to provide better operability as taught in paragraphs 0009 – 0011 of Fujii et al.

Regarding **claim 36**, as mentioned above in the discussion of claim 35, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches zooming the photographic screen to a maximum degree and enlarging the text (figure 12c; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example) but can be any thing in the region even text; also column 7 lines 17 *et seq.*; size).

Regarding **claim 37**, as mentioned above in the discussion of claim 35, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches comparing the calculated size of the text with a reference value and calculating a zoom ratio based on the comparison (figures 11 and 16 and column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; range of colors and area recognition and applying the zoom ratio to the photographic object also figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 – 135; zoom in on specific region; this region can be considered a normal region; also column 12 lines 49 *et seq.* and column 15 lines 6 *et seq.*; means for recognizing an object (a human face, for example); also column 7 lines 17 *et seq.*; size).

Regarding **claim 38**, as mentioned above in the discussion of claim 37, Sotoda et al. in view of Fujii et al. teaches all of the limitations of the parent claim. Additionally, Sotoda et al. teaches applying the calculated zoom ratio to the photographic screen (figures 12 (a) item 33, figure 12(b) item 35, figure 15 item 41, and figure 34 items 131 - 135).

### **Conclusion**

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Usman Khan whose telephone number is (571) 270-1131. The examiner can normally be reached on Mon-Thru 6:45-4:15; Fri 6:45-3:15 or Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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